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# DHA-7 Data Sheet

The DHA-7 downhole hydrophone array is designed for high-resolution seismic borehole imaging. Unique proprietary polymer hydrophones (no ceramics) are in-line molded to a fully integrated, triple-sealed multi-conductor cable. Non-shattering polymer material provides superior performance and durability under the rigors of borehole applications and a stable signal response up to 10 kHz.

*DHA-7 with Geode Seismograph.*

The Model DHA-7 is suited for use in cased and uncased, water-filled, narrow-diameter boreholes. The standard configurations include a group interval of 0.5 to 5 m and a total cable length of up to 400 m (1,312 ft). The cable is terminated topside with suitable connectors to mate with the seismograph and a 12VDC rechargeable power supply. Custom group intervals and multiborehole configurations are also available to tailor the system to meet your needs. The array is easily deployed by hand.

## Applications

- Image faults and fractures, stratigraphy, voids, mineral deposits, underground structures; determine soil, rock and reservoir properties
- Ideal for shallow gas and mining investigations, earthquake engineering and foundation studies, teaching and research
- Suited for high-resolution uphole, VSP, and crosshole surveys

## Features

- State-of-the-art polymer hydrophones provide superior, stable response
- Unique design isolates vibration and suppresses cable-related noise
- Small diameter and light weight make for easy deployment
- Reliably performs under the rigors of borehole applications

### Product Dimensions



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| Physical | Dimensions (L x W x H) | Weight |
|---|---|---|
| (instrument only) | depends on hydrophone int x 41.3mm x 41.3mm | 0.15kg/m |

## Technical Specifications

| | |
|---|---|
| **Hydrophone Sensor Type:** | Proprietary Polymer |
| **Channels:** | 12 or 24. |
| **Hydrophone Interval:** | 1-5m |
| **Sensors per Group:** | One. |
| **Frequency Response:** | 10 Hz to 10,000 Hz ± 1.0 dB. |
| **Sensitivity:** | -197 dB re 1 Volt per 1 ?Pa. |
| **Sensitivity with depth:** | < 1.0 dB over 400 m depth. |
| **Sensitivity with acceleration:** | < -70 dB re 1 Volt per g. |
| **Preamplifier Type:** | Ultra-low noise differential. |
| **Gain:** | 6 dB |
| **Power:** | ±12V DC Model DHA Battery Pack on surface. |
| **Maximum total length:** | 400 m, lead plus active section. |
| **Strength member:** | Kevlar center stress core. |
| **Bend Radius:** | 12.7 cm |
| **Working Load:** | 273 kg |
| **Breaking strength:** | 909 kg |
| **Temperature Operating Range:** | -10?C to +70?C |

## Gallery



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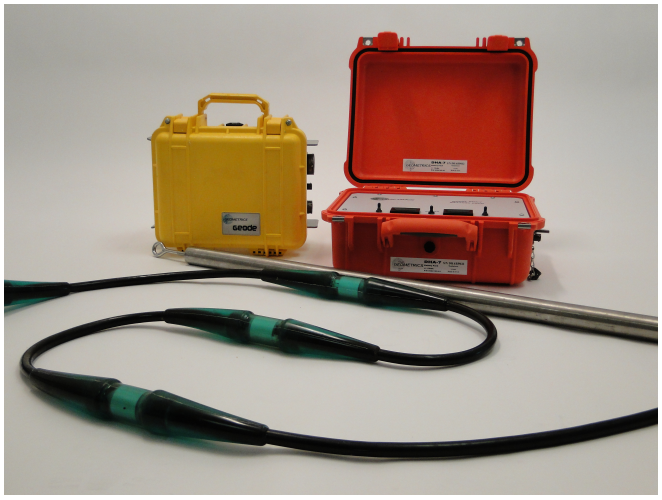

*DHA-7 with Geode, Image courteous of Geometrics Inc.*

*DHA-7 field Deployment*



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